FORCE/2 Next Generation™

Instruction Manual

Insulation blowing machine

Original Language – English

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Introduction

Thank you for purchasing an Intec insulation system. Since 1977, both professional contractors and do-it-yourself equipment users have looked to Intec as the industry leader in the design and manufacture of innovative portable insulation blowing equipment. We take pride in making your job as easy and profitable as possible.

The right system for your needs: Intec strives to provide you with the best combination of portability, functionality, and installation versatility to surpass your desired success. From lightweight polyethylene units with removable hoppers, to larger units with increased production rates and installation versatility, all of our durable systems are made to maximize your profit generating potential.

Best-in-class Customer Service: Total ease of use extends beyond your initial purchase of an Intec system to your evolving needs thru the entire lifecycle. Both before and after the sale service is important to keep you running at peak operating capabilities. Intec's technical team provides installation assistance in addition to maintenance suggestions and trouble-shooting support. In addition to blowing machines, Intec produces a range of accessories that will increase your productivity when dense packing, damp spraying, and installing net and blow.

Thank you for partnering with Intec. We appreciate the confidence and trust you have placed in us, and wish you many profit-generating opportunities!

Ray Lavallee
President, Intec

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Symbols

SYMBOL	SYMBOL	MEANING
DANGER	Danger	Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury.
WARNING	Warning	Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.
CAUTION	Caution	Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.

Safety First

WARNING

- Disconnect all power cords prior to working on the equipment. Failure to do so could result in injury or death.
- Never put hands into the hopper when machine is running.
- Never operate equipment while standing in water as electrical shock may result.
- Always use grounded extension cords when operating equipment.

CAUTION

- When working with insulation, always wear a long sleeve shirt, gloves and a hat. Wear goggles or safety glasses for eye protection. Wear a mask for respiratory protection.
- Keep tools and foreign objects out of the hopper.
- Never leave the machine unattended during operation. Disconnect all power to the machine when unattended.
- Never operate the equipment with the access panels off, possible injury may occur.
- Prior to use, inspect power cord and remote cord prior to ensure no damage exists.

How the System Works

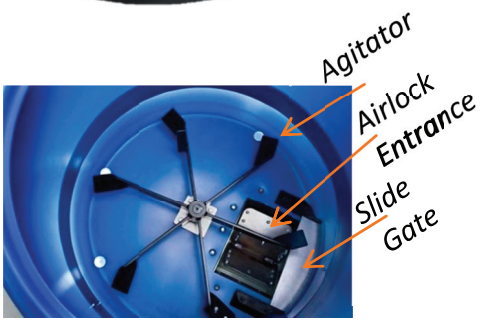
OVERVIEW: Cellulose, Fiberglass, or Stone Wool insulation is loaded into the hopper. The agitator breaks-up and conditions the insulation for proper density while also sweeping the insulation into the airlock. The airlock transports the insulation into the airstream created by the blower system. Insulation is discharged from the airlock, through the machine outlet, and into the hose. The insulation is further conditioned as it travels through the hose.

An introduction to key components of the system follows:

Electrical Panel: The electrical panel, combined with the remote (wired and/or wireless), provides operation of the machine.

Hopper: The hopper contains the insulation being fed into the agitators.

Hopper Extension *(optional):* The extension provides the user the ability to place more insulation into the hopper. It will also safely keep hands away from the agitator bar.



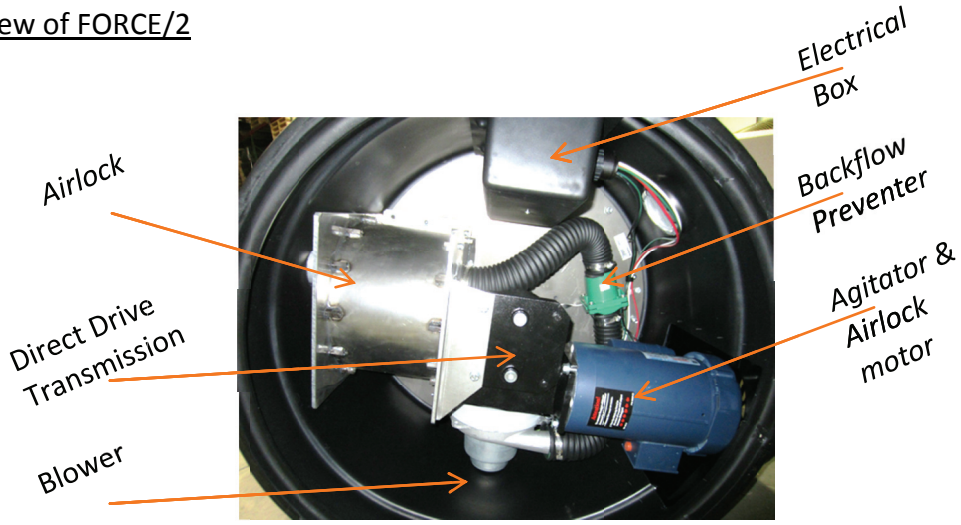
Agitator: The agitator is located in the bottom section of the hopper. The configuration of the agitator enables high production rates and appropriate insulation conditioning. The agitator also transports the insulation through the slide gate and into the airlock.

Slide Gate: The slide gate is between the agitator and the airlock. The slide gate allows the user to alter the volume of insulation insulation being swept into the airlock over time. An open slide gate provides the maximum amount of insulation into the airlock over time; often this is the case when open blowing attics. Closing the slide gate provides more conditioning to the insulation. When the slide gate restricts insulation flow into the airlock the insulation comes into more contact with the agitator, resulting in increased conditioning of the insulation and more airflow vs. product flow ratio. The slide gate is typically used during wall fill applications where the user desired a higher ratio of air to product flow to pack the insulation densely into wall cavities.

Airlock: The airlock transfers the insulation from the agitation system into the airstream. Note insulation does not come into contact with the blower. Insulation is discharged from the airlock by way of the machine outlet into the hose. Hose is not shown in above diagram; hose is connected to the Machine Outlet.

Backflow preventer: The backflow preventer (or one-way valve) is found in the base of the system and is positioned between the blower and airlock. The backflow preventer will keep insulation from flowing backwards through the airlock and into the blower which may happen when the pressure of product in the hose is more than that of the pressure in the line between the blower and airlock - examples include (i) hose moving straight up from machine to a second or third story, or (ii) during some dense pack operation. The back blow preventer prolongs the blower motor's life.

Underside view of FORCE/2



Set up and Operation

System Set-Up:

Set system on a dry, level surface.

1. Obtain appropriate protective equipment.
    a. Recommendations: dust mask, eye protection, gloves, knife to cut insulation bags, and a hat.

2. Power Connections: Obtain two 12 gauge, heavy duty twist-lock power cords (note: when requiring over 100 feet per power cord, recommendation is to use 10 gauge in order to reduce the voltage drop and allow for appropriate operation of motors). Connect one power cord to the blower power receptacle, and one to the agitator & airlock power inlet. Note that each power source is required to be an *independent* 15 amp (or greater) circuit.

3. Remote:

   a. If using the wired remote, twist the wired remote plug into the wired remote receptacle until it clicks.

Wired Remote's plug

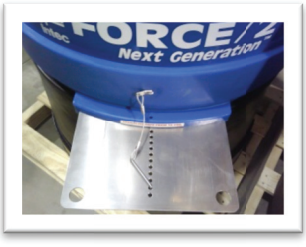
   b. If you do not have a wired remote and you do not have a wireless remote, insert the jumper plug into the wired remote receptable to allow for operation of the system by the control panel.

Jumper plug—use when desire to control system by electrical panel and do not have the wired remote connected as shown above.

   c. If you have a wireless remote system
      i. place the remote selector switch in the 'wireless' setting to control the system by the wireless remote;
      ii. place the remote selector switch in the 'remote cord' setting if you desire to operate system with a wired remote.

4. Attach 3" hose (typically 100 feet or more) to machine outlet using a hose clamp. *Note: If you desire to wall fill, you may desire Intec's Machine Insert Tube which converts your machine's outlet to 2"; this is a recommended procedure when using cellulose (Intec's multi-reducer hose kit is recommended when using fiberglass). You can now use 2" hose from your machine's outlet with no need to use various size hoses and reducing couplers.*

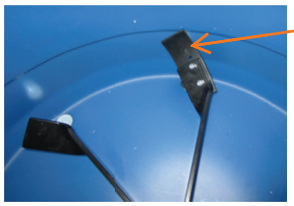
5. Open slide gate & place pin in desired opening.



6. Ensure your system is located on a stable flat surface to maintain even loading and blowing.
   a. *Tip* - The optional ***Wheel Kit*** will assist in moving your FORCE/2.

   b. *Tip* - Some rental customers fasten the FORCE/2 to a pallet in order ease loading / unloading into a truck or trailer.

7. Agitator's Rubber Flap: Your FORCE/2 comes with a rubber flap that attaches to one of the agitator paddels. ***Fasten the rubber flap to your agitator when you are using cellulose***. The purpose of this flap is to swipe the side of the hopper and prevent cellulose from bridging.
   Remove the flap when you are using fiberglass or stonewool; keeping the flap installed when using fiberglass or stonewool will cause these fibrous materials to bunch up against the agitator paddle fastened to the flap causing the agitator to jam and circuit breaker to trip.



8. Prior to turning the system 'on', make sure the hopper is empty. Often times reducers, power cords, wired and/or wireless remotes, hose, and various other tools are left in the hopper. Starting the system with these items in the hopper can cause damage to the agitator, the airlock, and to the items left in the hopper.

System Operation:

1. Energize System
   a. Reset circuit breakers for both the Blower and the Agitator motors.
   b. Place electrical panel switches for both the blower and agitator in the 'ON' position.
   c. Ensure the Variable Speed Bypass three position toggle switch is either in the 'ON' or 'OFF' position.
   Note 1: If you desire to use the variable speed, place this bypass switch in the 'OFF' position. Then set the variable speed dial to the desired setting based on desired blower speed.

Note 2: If you desire maximum blower volume and pressure, place this bypass switch in the 'ON' position. This setting provides for maximum production rates.

Note 3: If this switch is in the center (or NEUTRAL) position, the blower will not turn on.

Electrical Panel

Wired Remote control

Wireless Remote control

2. Activate System using either the wired or wireless remote system.
   a. Press *Start Blower* button. The blower will start.
   b. Press *Start Agitator* button. The agitator motor will then start.

   Note: This system is designed for the blower to start first. The blower has to be on for the agitator to be able to activate.

Tip - To obtain maximum blower velocity and pressure, place the Variable Speed control in the 'OFF' position. Placing the *Variable Speed* in the 'OFF' position provides more power to your system's blower when compared to having the *Variable Speed* 'ON' and the *Variable Speed Setting* at 100%.

3. Load Insulation -- Remove packaging and load insulation.

<u>Cellulose:</u>

Set bag on edge of hopper & remove plastic wrapping.

Caution - Be sure no plastic goes into hopper.

<u>Fiberglass or Stone Wool:</u>

1. Score bag in ½

2. Bend bag to break in 1/2

3. Place ½ bag on edge of hopper with open end facing towards operator or away from operator – do not have open end facing into the hopper. Slice wrapper in direction shown to allow product to expand into hopper.
Caution – Be sure no plastic goes into hopper.

Maintenance

Preventative maintenance will provide for many years of trouble-free use.

Cleaning

Clean the interior and exterior of the machine weekly by wiping with a rag and/or blowing with compressed air; this will help maintain the longevity of the mechanical components in addition to the system's finish. The machine has been designed to work in a dusty environment. However, without periodic cleaning and maintenance, the performance of the machine will decline potentially leading to failure.

Cords

Your 12 gauge power cords are subject to considerable wear and tear during normal operation. Inspect all cords prior to use to ensure safe operation. If any damage is observed, be sure to repair or replace before operating the machine to avoid personal injury. Note: Do not pull on power cords while plugged into machine as damage may occur.

Airlock and Seals

The airlock assembly is one of the most important items to keep in good condition. Foreign objects in the airlock can cause damage and reduce the machine's production. Seal failure is the most common airlock assembly failure. Seal failure prevents the airlock from holding the proper pressure. Seal failure will reduce the machine's production. A machine with seal failure will have air blow out of the airlock into the hopper, reducing the amount of air exiting the machine outlet. It is recommended to visually inspected seals each week to ensure proper running condition. Replace airlock seals if a cut or tear is evident. Airlock seals should be replaced approximately every 300 hours of operation, or once per year. Visit www.inteccorp.com or contact Intec for replacement instructions.

Gearbox

It is recommended to change the gearbox oil once per year. When changing the oil be sure to use the correct lubricant. In operating temperatures between 40 to 100 degrees Fahrenheit, use Mobil SHC 634 gear lube. In temperatures below 40 degrees, use Mobil 1 synthetic 5W-30.

Blower Brushes

The infinity brush used in the *FORCE/2 Next Generation's* blower motor is expected to last the lifetime of the motor; it is not replaceable.

TroubleShooting

Problem	Likely Cause	Remedy
Machine does not turn on.	Power cord connection is loose.	Ensure appropriate power cord connection at machine.
		Ensure appropriate power cord connection at power source.
	Power cord not connected at machine or power source.	Connect power cord.
	Machine's blower or agitator circuit breaker(s) has tripped.	Push to reset circuit breaker(s).
	Circuit breaker at power source has tripped.	Reset circuit breaker.
	Electrical system may have a loose wire.	Have the system inspected by a qualified technician.
	Wired remote plug not placed in electrical panel's receptacle.	Plug the wired remote's plug into the electrical panel's receptacle. If you do not have the remote cord, the jumper plug is required to be inserted into the remote's receptacle for system to be controlled by the electrical panel.
	Wired remote cord & electrical panel switches need to be in 'ON' position for machine to turn on.	Place the electrical panel blower and agitator switches in the 'ON' position. Place the remote's blower switch in the 'ON' position; place the remote's agitator switch in the 'ON' position.
Blower does not run.	Blower's circuit breaker needs to be reset.	Blower circuit breaker is a small rocker switch. There should not be white showing on the circuit breaker.
	Variable Speed switch is in the neutral position.	Place Variable Speed switch in either the 'off' or 'on' position.
	Worn brushes in blower motor.	Have a qualified technician replace blower brushes or replace blower motor.

Problem	Likely Cause	Remedy
Agitator does not run.	Blower has to be on for agitator to come on.	Turn blower on.
	Agitator circuit breaker needs to be pressed.	Ensure agitator circuit breaker is reset.
	Foreign material causing jam in hopper.	Remove power cords, clear jam, and restart system.
	Blower contactor overload activated.	Let system cool. If happens often, contact Intec for settings.
Machine is on, yet no material comes out of hose.	Slide gate is closed.	Open slide gate.
	Insulation blockage in hose.	Turn system off, remove hose and clear blockage.
	Air pocket in hopper is preventing insulation from feeding into agitators.	Disconnect electrical power. Redistribute insulation material inside hopper.
	Airlock seal is worn.	Inspect airlock seals for cuts and wear. Have a qualified technician replace airlock seals.
	Airlock has an obstruction preventing insulation from exiting.	Disconnect electrical power, remove obstruction.
Insulation exiting hose is dribbling out.	Heavy insulation material.	Push slide gate in 1-2 holes.
	Kink in hose.	Straighten hose.
	Airlock seal is worn.	Inspect airlock seals for cuts and wear. Have a qualified technician replace airlock seals.
Circuit breakers need resetting often.	Low voltage or low amperage.	System requires 115V / 15amp ***separate*** circuit for agitator and each blower.
	Extension cord gauge is too small.	Use a 12/3 heavy duty (i.e. SJ300V) extension cord when length is 100’ or less. Use a 10/3 heavy duty extension cord when length is over 100’.

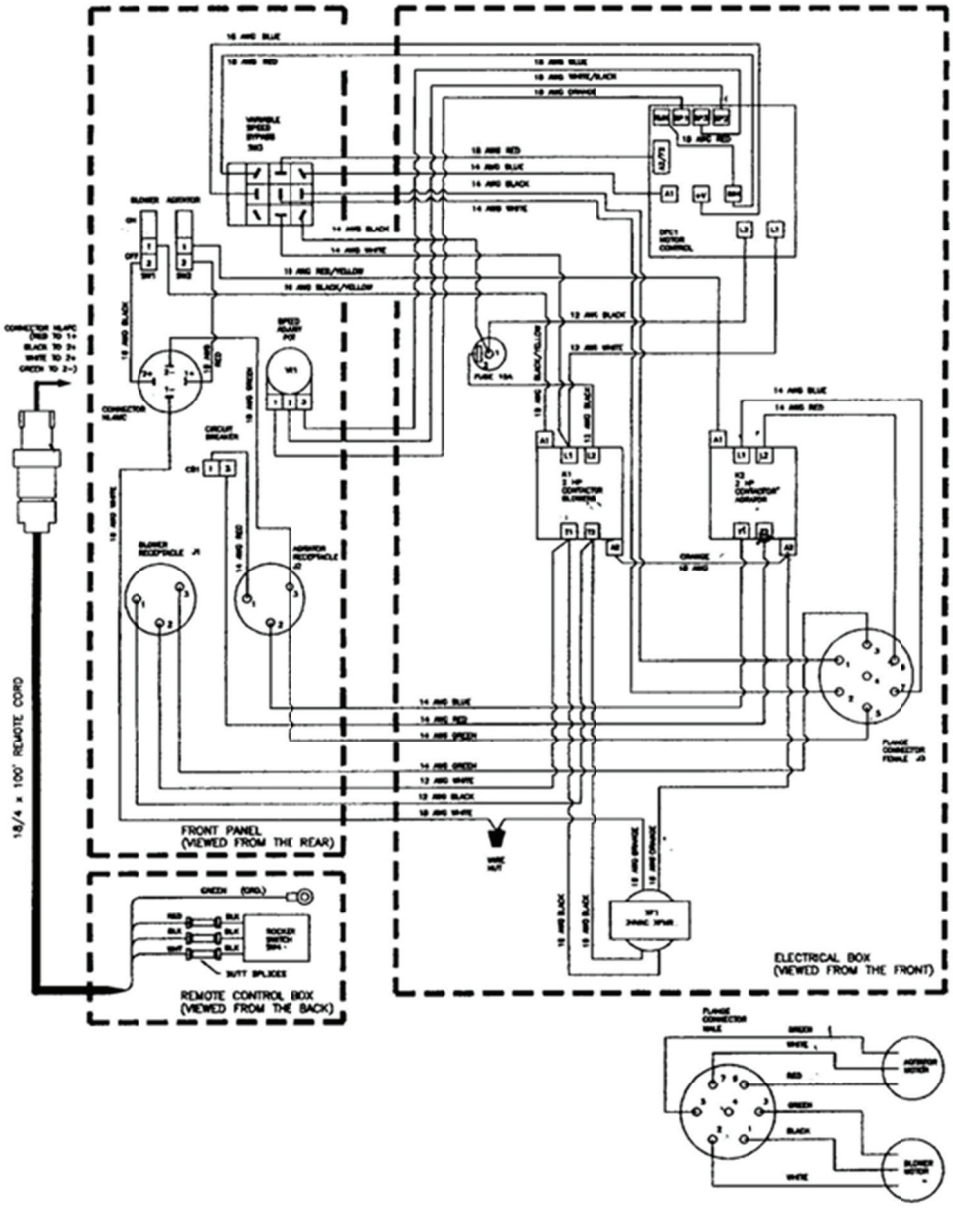
Specifications

Weight	283 lbs 175 kg
Blower	115 VAC, two stage (5.5+psi at sea level)
Agitator Motor	1 ½ HP, 115VAC,
Power Requirements	2-115VAC, 15 amp circuits, twist lock power receptacles and 2- 12/3, 100’ heavy duty power cords.

Electrical Drawing

Wiring Diagram
Mfg from 9/02 - Present

Electrical With Remote Disconnect



Making a Claim for Damage or Loss

Your Intec products were carefully packed and thoroughly inspected before leaving our factory. We understand that damage to or defects with your system may unfortunately occur. Please inspect your shipment carefully upon arrival and save the shipping containers and packaging materials in case of damage.

The following table provides you with appropriate actions to take when certain issues are realized.

	ISSUE	Action to Take
1	***DAMAGE in Transit***	
	A Visible **PRIOR** to unpacking (Damage to carton or packing material).	File Claim with appropriate freight carrier.
	B Visible **AFTER** unpacking (Only apparent when unpacked).	File Claim with appropriate freight carrier.
	C Shortage (# containers does not agree to transportation bill).	File Claim with appropriate freight carrier.
	When items leave our warehouse, the shipper assumes responsibility. It is the responsibility of the consignee to file a claim. Proper documentation is necessary to support the claim. Please inspect all items properly prior to signing for them.	
2	***Items received not correct***	
	A Incorrect items received.	Contact Intec Customer Service
	B Incomplete order received (not backordered).	Contact Intec Customer Service **303.833.6644 ext. 2** **info@inteccorp.com**
3	***Issue within the warranty period***	
	A Troubleshooting (machine or part not operating as intended).	Contact Intec Customer Service
	B Replacement part(s).	Contact Intec Customer Service
	Intec can assist with troubleshooting your issue, and can get you back up and running. If warranty parts are required, a return material authorization (RMA) will be issued by technical service.	**303.833.6644 ext. 3** or **info@inteccorp.com**
4	***Issue outside of warranty period***	
	A Replacement part, troubleshooting.	Contact Intec Customer Service
	B Need assistance from a service center.	Contact Intec Customer Service **303.833.6644 ext. 3**

Shipping Department
Intec
3771 Monarch Street, unit F
Erie, CO 80516

phone: 303-833-6644, 800-666-1611
fax: 303-833-6650
email: info@inteccorp.com
website: www.inteccorp.com

Warranty

It is expressly understood and agreed that no officer, agent, salesman or employee of the manufacturer Intec (MANUFACTURER) has the authority to obligate the MANUFACTURER by any terms, stipulations, or conditions not herein expressed; that all previous representations and agreements, either verbal or written, referring to the machinery and equipment, which is the subject of this Warranty, are hereby superseded and canceled, and that there are no promises or agreements outside of the Warranty agreement. Furthermore, the MANUFACTURER hereby disclaims any implied warranties of merchantability, or implied warranties of fitness for a particular purpose.

With the above understanding, the MANUFACTURER provides the following two (2) Year Limited Warranty, and no other, for its insulation blowing machines (MACHINES):

a) MANUFACTURER warrants to the original purchaser that the MACHINE is well made, of good material and durable; but only if the MACHINE is operated and maintained in accordance with the Instruction Manual. This Warranty is void if the MACHINE is not so operated and maintained, or if the MACHINE is used for blowing materials other than those which are intended to be used with the MACHINE.

b) MANUFACTURER guarantees the MACHINE to be free from manufacturing defects at the time of shipment, and to remain free from defects when operated under normal use, for a period of two (2) years from the date of factory shipment, with the exception of the blowers, electrical and air lock components, which are warrantied for a period of one (1) year from date of factory shipment.

c) This Warranty shall not apply to any MACHINE or component part which, in the opinion of the MANUFACTURER, has been altered, subject to misuse, negligence, accident or operated beyond factory rated capacity. All requested Warranty work should be performed at MANUFACTURER's factory or by an Authorized Factory Service Facility. Failure to have the Warranty work done at MANUFACTURER'S factory or by an Authorized Factory Service Facility will void this Warranty. MANUFACTURER will bear full responsibility to repair or replace, at its option, without charge to the original purchaser, any part that, in the MANUFACTURER'S opinion, is found to be defective.

d) All parts claimed defective by original purchaser shall be returned, properly identified, to MANUFACTURER's factory or Authorized Factory Service facility, freight prepaid. All replacement, repaired or non-defective parts will be returned to purchaser, freight collect. MANUFACTURER will supply replacement parts prior to purchaser, freight collect. MANUFACTURER will supply replacement parts prior to receipt of any parts claimed defective, only with the understanding that such replacement parts will be shipped to purchaser at the then prevailing price of said part, C.O.D., freight collect. MANUFACTURER will reimburse cost of any such part only after receipt and inspection, and finding said part defective.

e) MANUFACTURER's liability is expressly limited to the repair or replacement of defective parts set forth in this Warranty. All other damages and warranties, statutory or otherwise, being waived are original purchaser as a condition of sale and purchase of said machines. Furthermore, the MANUFACTURER shall not be liable for damages or delays caused by defective material or workmanship.